SELECTED POINT SOURCE LOADINGS TO SURFACE WATER

What does the indicator tell us?

This indicator presents the change in point source loadings from 1990 to 1995 for two key pollutants—biochemical oxygen demand (BOD) and lead. The indicator shows whether the amount of contaminant being discharged increased, decreased, or remained stable for each state. The results show that the majority of states are showing a decrease in these point source loads.

How will the indicator be used to track progress?

Information about these pollutants is contained in EPA's Permit Compliance System (PCS). The states report to EPA loadings numbers for those facilities permitted through the National Pollutant Discharge Elimination System (NPDES). The NPDES permitting process sets limits on the amount of discharge or the amount of contaminant contained in a discharge from facilities that discharge wastewater directly to a waterbody through a point source like a pipe.

What is being done to improve the indicator?

While the information displayed under this indicator covers only lead and BOD, many point sources contaminate our surface waters, many contaminants have been identified as a priority of particular concern, and PCS has information on many more. EPA and its partners have chosen several toxic and conventional pollutants to track as indicators of progress toward reducing point source pollution. In the future, this indicator should include all the pollutants in the following list:

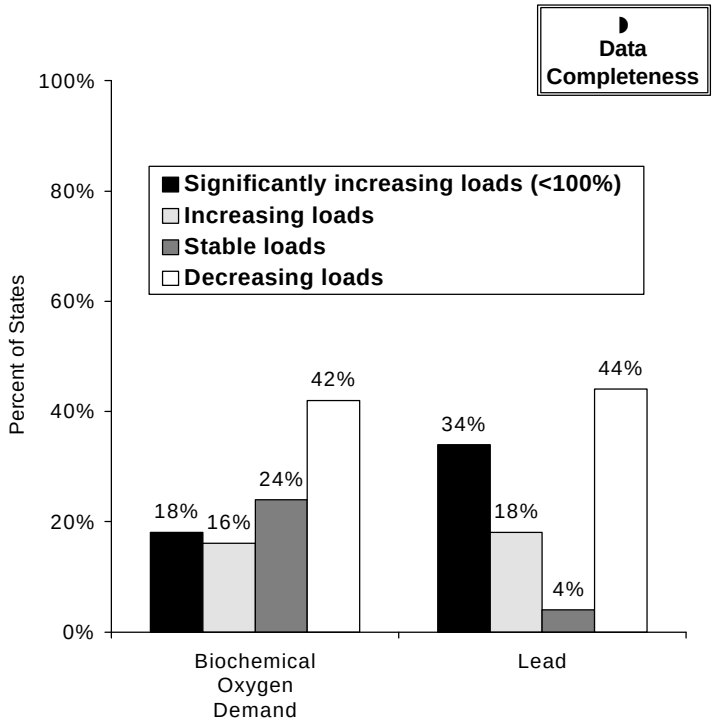
Toxic Pollutants

- Cadmium
- Copper
- Lead
- Mercury
- Phenol
- Total residual chloride

Conventional Pollutants

- Ammonia
- BOD
- Nitrogen (and nitrate)
- Pathogens
- Phosphorus
- Suspended solids

INDICATOR 16a: Selected Point Source Loadings to Surface Water



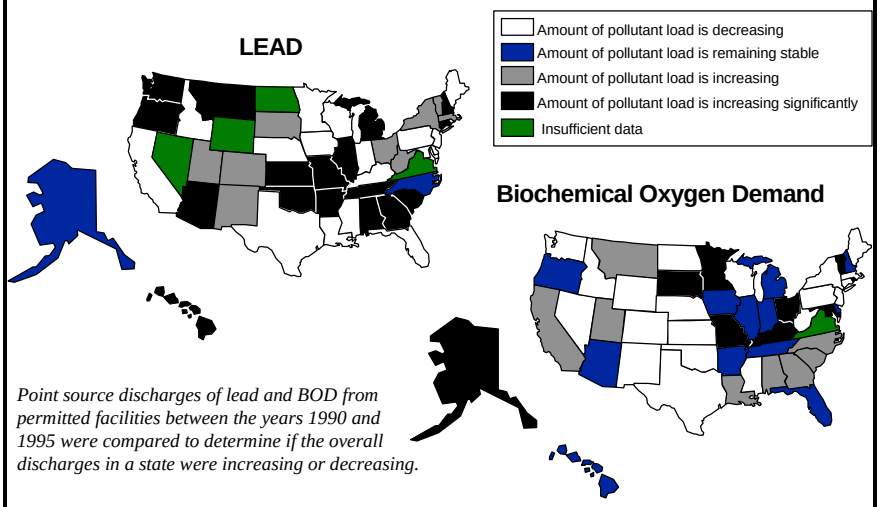
Source: Permit Compliance System, 1995

Proposed Milestone: By 2005, annual pollutant discharges from key point sources that threaten public health and aquatic ecosystems will be reduced by 3 billion pounds, or 28 percent.

Indicator 16a: Selected Point Source Loadings to Surface Water

In addition to including more contaminants in the future, other issues need to be addressed to improve the indicator. Although the number of NPDES permitted facilities remains fairly consistent, the contaminants covered by these permits can change. For example, the number of permits limiting lead in 1990 was 2,630, but this number increased to 4,134 in 1995. Therefore, comparison between 1990 and 1995 lead loadings can be misleading.

Point Source Loading Trends in the United States



Point source discharges of lead and BOD from permitted facilities between the years 1990 and 1995 were compared to determine if the overall discharges in a state were increasing or decreasing.

Source: State data in EPA's Permit Compliance System

In addition, some facilities, especially smaller facilities, do not consistently report the results of point source monitoring to PCS, while other facilities discharging contaminants of concern are not required to relay discharge information to PCS. EPA is working with its partners to more accurately and consistently report this indicator so that it presents a true picture of the amount and severity of point source loads nationally. EPA will take actions that address (1) changes in permitting requirements from year to year, (2) inconsistent reporting from facilities required to submit discharge data, (3) facilities not required to report discharge data but still responsible for releasing contaminants to receiving waters, and (4) differing chemical composition among contaminants in the same general category.

The National Oceanic and Atmospheric Administration has developed the Typical Pollutant Concentration (TPC) matrix, which will estimate point source loadings from dischargers based on the type of activity that occurs at the facility. USGS and EPA are working closely with NOAA to determine how best to use the TPC methodology with an improved PCS system to help ensure accurate, consistent reporting of this indicator. EPA also plans to provide guidance to regional and state permit writers on how to enter data more accurately and consistently into PCS to help facilitate improved reporting of this indicator.

What is being done to improve conditions measured by the indicator?

For surface waters, the major point sources of pollution are sewage treatment plants, industrial facilities, and "wet-weather" sources like combined sewer overflows (CSOs), sanitary sewer overflows (SSOs), and stormwater. Sewage treatment plants treat and discharge wastewater from homes, public buildings, commercial establishments, stormwater sewers, and some industries. Many industrial facilities treat and discharge their own wastewater. Combined sewers combine stormwater and sewage in the same system and can overflow directly to waterbodies without treatment during periods of intense rainfall. EPA will continue to permit and regulate these facilities to continue to reduce pollution from point sources.

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